

CLAIMS

1. A process for the pneumatic splicing of threads or yarns containing an elastomer or with a high torque, characterized in that it comprises at least the following phases, in succession: introduction into a splicing chamber (11, 110) belonging to a splicer (10, 100) of thread-ends (12, 15) to be joined to each other; withholding by friction of the thread-ends (12, 15) by means of friction elements or devices (27, 20, 21) close to or inside the splicing chamber (11, 110); cutting of the thread-ends (12, 15) by means of cutting devices (18, 19); opening of said thread-ends (12, 15) cut by means of preparation units (22, 23); pulling of said cut and opened thread-ends (12, 15) in the direction of said junction chamber (11, 110) according to the arrows (F); expulsion of said threads (12, 15) from said friction elements (27, 20, 21) and contemporaneous entry of one or more jets of compressed air into the above chamber (11, 110) to effect the splicing of said thread-ends (12, 15) and releasing of the spliced thread with the return of all the units of the splicer (10, 100) to their initial position.
2. The process according to claim 1, characterized in that said withholding phase by friction of said thread-ends (12, 15) inside said splicing chamber (11) is

effected by the insertion of said threads (12, 15) into a longitudinal fissure (27), or friction element, present on the bottom of a groove (25) of said splicing chamber (11).

5 3. The process according to claim 2, characterized in that said thread-ends (12, 15) are expelled from said fissure (27) by the entry of compressed air into said fissure (27) through a channel (28) contemporaneously with said splicing phase.

10 4. The process according to claim 1, characterized in that said withholding phase by friction of said thread-ends (12, 15) close to said splicing chamber (110), comprises the use of friction elements (20, 21) equipped with a longitudinal fissure (34) and situated
15 upstream of said splicing chamber (11) and downstream of said preparation units (22, 23).

5. A device for the pneumatic splicing of threads or yarns containing an elastomer, comprising a splicing chamber (11), equipped with a longitudinal groove (25)
20 for the insertion of thread-ends (12, 15) to be spliced in which there are one or more adduction nozzles of compressed air (24), and cutting devices (18, 19) of said threads (12, 15), characterized in that said longitudinal groove (25) of said splicing chamber (11)
25 is equipped on the bottom with a longitudinal fissure

(27), or friction element, which extends for the whole length of said groove (25) for withholding said threads (12, 15) by friction and equipped with a channel (28) for the entry of compressed air into said fissure (27) for the expulsion of said threads (12, 15).

6. The device according to claim 5, characterized in that said fissure (27) has a width less than its depth.

7. The device according to claim 5, characterized in that said fissure (27) has a width ranging from 0.3 mm to 0.7 mm.

8. The device according to claim 5, characterized in that said fissure (27) has a depth equal to at least 1 mm.